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DATE: April 13, 2012

TO: Kelley Chase, EPA Region 3 OSC
Cynthia Caporale, EPA Region 3 OASQA

THROUGH:

FROM: **Ex. 4 - CBI**

SUBJECT: VERIFICATION/COMPLETENESS CHECK – DIMOCK, PA LABORATORY DATA
File 1203001 FINAL R33907 04 02 12 1502.pdf

INTRODUCTION

From April 11 to 12, 2012, a review of the case narratives and corresponding certificates of analysis from the EPA R3 (VOCs, SVOCs and Alcohols Report Mar 29) was conducted at the SERAS facility in accordance with the Follow-Up Verification/Completeness Check agreed upon during our teleconference on Wednesday 2/8/12.

The assumptions for this review include the following: 1) Case narratives from the Regional labs and/or subcontract labs have been reviewed in accordance with Regional or Environmental Services Assessment Team (ESAT) protocols and contain all pertinent and complete information to conduct the completeness check. SERAS will base this review on the information provided by the laboratory and not on an actual data package; and 2) SERAS will relay any "red" flags to the EPA R3 personnel to resolve and determine data usability.

OBSERVATIONS

In accordance with Table 1 – Field and QC Sampling Summary (Rev01 - 2/3/12), Table 2 – Sample Analytical Requirements Summary (Rev01 – 2/3/12), Methods for Groundwater and Surface Water Samples and the R3 SOPs for SVOCs (R3QA201-090111), VOCs (R3QA210-030410), ICP Metals (R3QA159-021511), ICP-MS Metals (R3QA-116-021511), glycols (SW846 Method 8321/ASTM D773-11 Modified), Anions by IC (R3QA108-110811), Nitrate/Nitrite (Method 353.2 using flow injection), Total Dissolved Solids (R3QA105-110811), Total Nitrogen (Method 353.2 using flow injection) and Total Suspended Solids (R3QA106-110311), the following observations were noted and need to be clarified/resolved.

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1. For VOCs, the following qualifications should be applied to the following samples as noted based on the blank results (method, field, trip in that order) in accordance with the National Functional Guidelines: Acetone 2.00U for samples HW61-P, HW61z and HW50.
2. For VOC analysis, precision and accuracy data for cyclohexane, Freon 113, methylacetate, methylcyclohexane or MTBE are not included in the laboratory report in Batch BC21301. All recoveries need to be provided to determine if these compounds are within QC criteria.
3. For VOC analysis, bromomethane, chloromethane and dichlorodifluoromethane recoveries for the 5 ppb LCS exceeded the QC recovery criterion of 80-120%. Since these compounds are non-detect, no further qualification is necessary.
4. For SVOCs, the following qualifications should be applied to the following samples as noted based on the blank results (method, field, in that order) in accordance with the National Functional Guidelines: Bis-2-ethylhexylphthalate 5.00U for samples HW60, HW56, FB20, HW61-P, HW61z, HW61, FB21, HW50; butylbenzylphthalate 5.00U for samples HW60, HW56, FB20, HW61-P, HW61z and HW61;

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diethylphthalate 5.00U for samples FB19, HW60, HW56, FB20, HW61-P, FB21 and HW50; and, di-n-butylphthalate 5.00U for samples FB19, HW60, HW56, FB20, HW61-P, HW61z, HW61, FB21 and HW50.

5. For SVOC analysis, the 2,4-dinitrotoluene recoveries for BS2 in Batch BC20802, BS2 in Batch BC21202 and the MS/MSD for sample HW56 exceeded the QC recovery limit. Since this compound was not detected in any of the samples, no further qualification is required.
6. For SVOC analysis, the case narrative states that the quantitation levels for 2,4-dinitrophenol for all samples and benzo(k) fluoranthene for most samples are qualified "UJ" due to exceeding calibration limits. Please supply the %RSD and/or %D for these compounds to verify the qualifications.
7. For SVOC analysis, the case narrative states that 2,4-dinitrophenol quantitation limits are raised to the mid-level value due to 0% recovery of the low and mid-low spikes. Please confirm that this statement applies to both the samples in Batch BC20802 (samples FB19, HW60, HW56, FB20, HW61-P, HW61z and HW61) and Batch 21202 (FB21 and HW50) to verify the qualifications.
8. For SVOC analysis, the case narrative states that 4,6-dinitro-2-methylphenol quantitation limits are qualified "UJ" due to low recovery in BS1. Please confirm that this statement applies to both the samples in Batch BC20802 (samples FB19, HW60, HW56, FB20, HW61-P, HW61z and HW61) and Batch 21202 (FB21 and HW50) to verify the qualifications.
9. For ICP metals analysis, the case narrative states that several samples (HW61 and HW50) for tin were qualified due to a QC samples outside of acceptance limits. Please indicate which QC sample is outside of criteria. The QC listed in the laboratory report is within acceptance criteria.
10. For ICP-MS metals analysis, the case narrative states that uranium for sample HW50 is qualified "UJ" due to the absence of a second source QC sample. Please supply justification for the qualification of only one sample (HW50) in the batch. If there is no second source standard for the batch, then all samples should be qualified.
11. For nitrate/nitrite and chloride, several samples were qualified "B" based on the level of field blank contamination. Please confirm that the RL will be raised to the level found in the associated field blank and a "U" qualifier assigned to be consistent with previous qualifications of inorganic data (i.e., TDS and Cu).
12. It is assumed that all required instrument QC (RSD, %D, minimum response factors, etc.) specified by the method was run and was either within the criteria listed in the EPA R3 SOPs or qualified based on any deficiencies.

cc: **Ex. 4 - CBI**
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